

worm is a foreign importation is what I have already, in my previous paper, suggested. The chief habitats for worms of this peculiar genus are Ceylon and India. We have specimens also of a species from Australia. In a second letter from Mr. Fish, dated April 9th, he further says, as to its foreign origin, "I think it probable the worms come from the Cape of Good Hope, or some part of Africa. The proprietor of Glevering Hall, where I first met them, was a great fancier of bulbs and imported a good many; and it was in a large *Crinum-amabile* pot that I first found the worm. My theory is that they came from Glevering here (Hardwick House), as it is quite possible that plants may have been exchanged between the two places." "They seem to have no fear of moles, as when disturbed they rush inwards, and not outwards as our common worm always does." Mr. Fish, in repeating that he has known this worm for twenty years, says that he has observed it for the last fourteen years at Hardwick House.

I have very little doubt that this curious worm will be found in various gardens throughout Great Britain.

##### 5. On Dr. Gray's Genus *Theonella*.

By J. S. BOWERBANK, LL.D., F.R.S., F.Z.S., &c.

On October the 23rd, 1868, I visited the British Museum for the purpose of reexamining some of the Siliceo-fibrous Sponges before sending my paper on that subject to this Society; and I then saw, for the first time, the specimen from Formosa sent by Mr. Swinhoe. I pointed it out to Dr. Baird, and expressed my wish to examine it. He forthwith conveyed it to the entomological department, where I closely inspected its structures and satisfied myself that it was a specimen of my previously named *Dactylocalyx Prattii*; and as such I have alluded to it in the first part of my paper on the Siliceo-fibrous Sponges, which was read at the meeting of this Society, January 28, 1869. I was not then aware that Dr. Gray had read a paper on the Formosan Sponge on November 12, 1868, immediately after my inspection of it at the British Museum. I received my copy of the 'Proceedings' of the Society on the 28th of April last, and I then saw Dr. Gray's description of the Formosan specimen under the designation of "Note on *Theonella*, a new genus of Coralloid Sponges from Formosa," P. Z. S. 1868, p. 565, and a very excellent woodcut of the sponge, p. 566.

Having previously become well acquainted with the specimen, I was somewhat surprised to see it designated as a new genus. The author's generic characters are ample enough it is true, as he embraces not only external form and the skeleton-structure, but every other character with which he became acquainted; but unfortunately he describes the anatomical structure so incorrectly as to inevitably lead the student into doubt and difficulty in the very first stage-of

his researches. Thus in the second line of his generic description he says:—"Internally formed of netted spicules arranged so as to leave an hexangular mass; the spicules subcylindrical, united at the inosculation of the network by a siliceous callosity." This is certainly the most incomprehensible description of a purely siliceo-fibrous network that can possibly be imagined; and the figure he has given of the reticulations of a portion of the skeleton-structure, P. Z. S. 1868, fig. 2, p. 566, at once contradicts his description. Throughout the remainder of his description he continues to describe the siliceo-fibrous structure as spicula.

In the first paragraph, p. 565, the author writes:—"The sponge in some external characters is like the genus *Macandrewia* (*Dactylocalyx*, Stutchbury), but it differs from that sponge in not having any stellate spicula." It is quite true that the Formosan sponge has no "stellate spicula;" but neither has the Doctor's *Macandrewia azorica*; so that it is not "the only sponge of the family in which they are not discovered."

The author describes the long slender interstitial spicula intermixed with the fibrous skeleton; but it is a singular circumstance that he appears to have entirely failed in detecting the remarkable forms of connecting spicula on the dermis, which I have designated as irregularly furcated patento-ternate, and which were first figured in the Phil. Trans. R. S. 1858, plate xxix. fig. 8, *in situ*, and fig. 9 as separated by nitric acid; and they are also represented in P. Z. S. 1869, Plate V. fig. 9, *in situ*, and figs. 9, 10 & 11 in the separate condition; and it is stated in the first part of my paper on the siliceo-fibrous sponges that they belong to my *Dactylocalyx Prattii*. These spicula certainly form the most prominent specific characters of the sponge, and they are so abundant in the expansile dermal system of the animal that it appears singular that any approach to a careful examination of its structure should fail to immediately discover them; nor has the author observed the minute entirely spined fusiformi-cylindrical spicula which are so abundantly dispersed on the surfaces of the dermal and other membranes of this species of sponge, and which are represented in Plate V. fig. 7, P. Z. S. 1869. Thus the author has been led into the error of believing the sponge to be the type of a new genus by merely abstaining from a careful and proper examination of the structural peculiarities of the specimen under consideration. I will not reiterate the description of the Formosan specimen that I have given in my paper, P. Z. S. 1869, in my history of *Dactylocalyx Prattii*; I will quote only a few lines comparing the two specimens under consideration:—"The sponge is fortunately in very nearly as fine a state of preservation as when taken from the sea; and every organ that is found in the type specimen appears in abundance in the one from Formosa. In truth, portions of the structures taken from the one specimen cannot, by microscopical examination, be distinguished from those mounted from the other."